

II. REMARKS

Claims 1 to 41 are pending in the subject application.

Claims 25 to 41 have been withdrawn from consideration as a result of a requirement for restriction. Claims 2, 5-7, 17-19 and 21-23 were examined and stand variously rejected. Claims 2 and 5 have been amended in this Reply as requested by the Office. An issue of new matter is not raised by these amendments and entry thereof is respectfully requested.

In view of the preceding amendments and remarks that follow, reconsideration and withdrawal of the rejections of the claims is respectfully requested.

Objection to the Claims

Claim 2 was objected to on the ground that the term "function" in line 5 should be "functional". Correction as requested by the Office has been incorporated into the claim. In view of this amendment, reconsideration and withdrawal of the objection is respectfully requested.

35 U.S.C. § 112, Second Paragraph

Claims 5 and 6 stand rejected under 35 U.S.C. § 112, Second Paragraph for allegedly being indefinite. The Office supplied suggested language which has been incorporated into claim 5, from which claim 6 depends. In view of the preceding amendment, reconsideration and withdrawal of the rejection is respectfully requested.

35 U.S.C. § 103

Claims 2, 5-7, 17-19 and 21-23 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over either Li et al. or Rothwarf et al. in view of Traincard et al. (newly applied) and Epinat et al.

Briefly, and without repeating the stated grounds for rejection as allegedly obvious over the cited art, the Office argued that Li et al. and Rothwarf et al. were cited for teaching the expression of active IKK complexes in mammalian cells by inserting the

genes encoding each subunit fused to a tag. The Office opined that the only difference between the instant claims and the cited references is the use of yeast as the host.

The Office argued that Traincard et al. teach that within eukaryotic systems, no homologs of any of member of the NF-kappaB signaling system (clearly disclosed as including Rel/NF-kappaB subunit genes and IKK genes) has been found within the genomes of *C. elegans* or *Saccharomyces cerevisia*, both of which were fully sequenced genomes at the time of the publication of Traincard et al.

The Office also argued that Epinat et al. teaches that yeast is a convenient host for the reconstitution of the NF-kappaB system since it does not contain any endogenous NF-kappaB activity and that the reconstituted system provides an easy assay for testing stimuli or specific proteins that are postulated to be involved in NF-kappa signaling. The Office argued that accordingly, it would have been obvious to one of ordinary skill in the art to reconstitute the IKK complex in a yeast host cells by expressing the IKK subunit genes of Li et al. or Rothwarf et al. in yeast using any known yeast expression vector or yeast expression vectors as taught by Epinat et al. as further evidenced by Traincard et al.

Applicants respectfully traverse. Applicants agree that the cited prior art (namely Li et al. or Rothwarf et al.) teaches the reconstitution of IKK complexes in mammalian systems while the claimed invention is to the reconstitution of IKK complexes in yeast. However, the combination of references fails to render obvious the amended claims because the combination fails to teach or suggest a method for reconstituting substantially homogenous IKK protein complex comprising at least the IKK γ subunit. Applicants were the first to prepare and isolate substantially homogenous IKK protein complex comprising the IKK γ subunit. The Office's *prima facie* case has failed to address the fact that mammalian systems do not form substantially homogenous complex because the exogenous IKK gene products would complex with the endogenously produced IKK gene products. The claimed invention is not merely a substitution of one system for another (yeast for mammalian) but rather the unexpected finding that Applicants' system would produce a substantially homogenous and

biologically functioning complex. This was not known or inherent in the prior art systems and therefore is a significant advancement over the prior art. The rejection is improper and Applicants respectfully request its withdrawal.

III. CONCLUSION

If a telephone interview would advance prosecution of the subject application, the Examiner is invited to telephone the undersigned at the number provided below. In the unlikely event that the transmittal letter is separated from this document and/or the Patent Office determines that an extension and/or other relief is required, Applicants petition for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 50-0872** referencing 064189-0501. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Respectfully submitted,

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By



FOLEY & LARDNER LLP
Customer Number: 38706
Telephone: (650) 251-1129
Facsimile: (650) 856-3710

Antoinette F. Konski
Attorney for Applicants
Registration No. 34,202